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REMARKS

In the above-referred to Examiners Amendment, the Examiner has amended the claims to insert a limitation that the partition plate is L-shaped. Applicant has reconsidered and wishes to delete this limitation. Applicant believes the claims to be allowable as amended above for the following reasons:

(A) CLAIM 3

(i) In claim 3, the drive means consists of a single drive unit, whilst Rigo requires two drive units; the first actuator 18 for controlling the positioning member (wall body) 19 and the second actuator 181 for controlling the baffle (distributing lever) 191.

(ii) In claim 3, the distributing lever includes a pair of guide plates that are arranged with a predetermined gap therebetween, whilst in Rigo, a distributing lever (baffle) 191 does not include a pair of guide plates, nor is there a predetermined gap therebetween.

(iii) In claim 3, the wall body temporarily stops a coin-shaped IC card that is inserted into the gap of the distributing lever, whilst in Rigo, a wall body 19 (Fig. 1) does not stop a coin-shaped IC card when inserted in (the gap of) the distributing lever.

The art of record does not disclose or suggest the configuration (i) to (iii) of claim 3.

DRAWBACKS OF THE PRIOR ART:

A coin-shaped IC card reader/writer created by Rigo and other citation would require two drive units; the first actuator 18 for controlling the positioning member 19 and the second actuator 181 for controlling the baffle 191. Therefore, the apparatus would have the following drawbacks:

1. Larger in size.
2. The number of parts is increased. Because two drive units are required, manufacturing cost is increased.
3. Construction is complicated because of the larger number of parts
4. The card reader/writer of Rigo is difficult to control because it is necessary to make the operations of two driving units synchronized. For the same reason, the card

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reader/writer of Rigo cannot guide the card reliably when these two driving units are not synchronized properly.

5. Time required for operations from reading/writing to distribution of the coin-shaped IC card to one of the guide paths is long. In Rigo, a coin-shaped IC card is temporarily stopped by the lever 19 to read/write information in and from the coin-shaped IC card, and then the coin-shaped IC card is guided to the distributing lever 191 by releasing the temporal stop of the coin-shaped IC card, and thereafter, the coin-shaped IC card is distributed by operating the distributing lever 191. With these operations, the time required for operations from reading/writing to distribution of the coin-shaped IC card to one of the guide paths becomes very long.

6. Power consumption is large because Rigo requires two drive units.

7. If the timing of driving the wall body 19 (Fig. 3 of Rigo) is wrong, the coin-shaped IC card is guided to the guide path 151 without being temporarily stopped. As a result, reading/writing of the coin-shaped IC card cannot be performed.

ADVANTAGEOUS EFFECT OF CLAIM 3

With the configuration (i), the card reader/writer of claim 3 has the following advantageous effects that Rigo, etc., does not have.

1. Smaller in size because only a single drive unit is required.

2. Lower in manufacturing cost because only a single drive unit is required.

3. Simpler in construction because only a single drive unit is required.

4. The card reader/writer of claim 3 is easier to control because it is not necessary to make the operations of two driving units synchronized as in Rigo. For the same reason, the card reader/writer of claim 3 can guide the card more reliably.

5. Time required for operations from reading/writing to distribution of the coin-shaped IC card to one of the guide paths is shortened. This is achieved by the configuration of claim 3 in which a coin-shaped IC card is temporarily stopped by a wall body in a condition where the coin-shaped IC card is inserted into the gap of the distributing lever, and then the coin-shaped IC card is guided to one of the guide paths by means of the drive means.

6. Power consumption is small because only a single driving unit is required.

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7. Reliability of read/write operations of coin-shaped IC card is improved. To operate the card reader/writer of claim 3, synchronization of a plurality of drive units is not required. The coin-shaped IC card can be stopped reliably by colliding it with the wall body. Therefore, read/write operations of coin-shaped IC card can be made reliably.

(B) CLAIM 12

Claim 12 recites the following configuration in addition to the configurations (i)-(iii) of claim 3 mentioned above.

(iv) In claim 12, the distributing lever is secured to a shaft and rotatably supported by the shaft, whilst the distributing lever of Rigo does not swing.

(v) In claim 12, another two coin-shaped IC card guide paths are branched from the coin-shaped IC card guide path located immediately upstream thereof, and the other two coin-shaped IC card guide paths are arranged to be mutually offset from a centerline formed by the first-mentioned coin-shaped IC card guide path.

On the other hand, in Rigo, one 151 of the two coin-shaped IC card guide paths 151, 153, which are branched from the coin-shaped IC card guide path 15 located at immediately upstream thereof, are not offset from the coin-shaped IC card guide path 15 (Fig. 5).

The cited art does not disclose or suggest the configurations (i)-(v).

DRAWBACKS OF THE PRIOR ART

7'. Further, in Rigo, guide path 151 is not offset from the coin-shaped IC card guide path 15 (Fig. 3). Therefore, when timing of driving the wall body 19 is wrong, a coin-shaped IC card is not (temporarily) stopped, but is directly guided into the guide path 151 along the wall body 19, as a result of which reading/writing of information for the coin-shaped IC card cannot be made.

ADVANTAGEOUS EFFECT OF CLAIM 12

The configuration of claim 12 has the following advantageous effect in addition to the

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advantageous effect 1-6 of the configuration of claim 3 mentioned above.

7. The reliability of read/write operations of coin-shaped IC card is improved. There is no notion of taking a good timing to drive the wall body in the invention of claim 12. Further, with the aforementioned configuration (v) in which another two coin-shaped IC card guide paths, which are branched from an immediately upstream coin-shaped IC card guide path, are arranged to be mutually offset from a centerline formed by the coin-shaped IC card guide path, the coin-shaped IC card can be stopped really by colliding it with the wall body, whereby read/write operations of coin-shaped IC card can be made reliably, and with the aforementioned configuration (iv) in which the distributing lever is secured to a shaft and rotatably supported by the shaft, the coin-shaped IC card can be one of the another two guide paths by the rotation of the distributing lever.

Rigo, etc., does not have the advantageous effect of 7'.

C. CLAIM 3 AND CLAIM 12 OVER RIGO IN VIEW OF ABE

The examiner cited Abe stating that the coin-selecting apparatus of Abe includes a pair of plates 1, 2 and a ball guide 7, and that it would have been obvious for an artisan of ordinary skill to employ into the teachings of Rigo a pair of guiding plates and a predetermined distance therebetween so as to form a gap for inserting the coin.

However, since the guiding plates 1-2 of Abe are not configured as a swinging or movable lever, we think that the plates 1-2 cannot be replaced for the lever 191 of Rigo.

Even if the lever 191 of Rigo is replaced with the guiding plates 1-2 of Abe, since it is considered that the wall body of 19 corresponds to "wall body" of the present invention as the examiner recognized, the coin-shaped IC card reader/writer created by the combination of Rigo and Abe should have two driving units; a driving unit for driving the wall body 19 and a driving unit for driving the lever 191 that is arranged separately from the wall body 19. Therefore, this coin-shaped IC card reader/writer would have drawbacks 1-7 and 7'.

On the other hand, the coin-shaped IC card reader/writer of the claims 3 and 13 requires only a single driving unit. Therefore, the coin-shaped IC card reader/writer of the claim 3 has advantageous effects 1-7, and the coin-shaped IC card reader/writer of the claim 13 has advantageous effects 1-6 and 7'.

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Incidentally, in case that the lever 191 of Rigo is replaced with the guiding plates 1-2 of Abe, it does not appear that the ball guide 7 of Abe corresponds to "wall body" because the ball guide 7 is constituted by the damper ball 10, which serves to adjust the speed of a coin, but does not serve to temporarily stop the coin.

D. CLAIM 2

(i) The shaft of claim 2 forms one of side walls of the coin-shaped IC card guide path. On the other hand, the shaft 30 of Hossfield does not form a side wall of the guide path.

(ii) The antenna coil of claim 2 is arranged opposing to a central portion of the shaft, through which data is read from and written into the retained coin-shaped IC card. On the other hand, the sensor 52b of Hossfield is arranged opposing to a position that is deviated from the central portion of the shaft.

(iii) The shaft of claim 2 is rotated while the coin-shaped IC card is kept opposing to the central portion of the shaft. On the other hand, in Hossfield, the shaft is rotated while the coin is disposed in the notch that is arranged opposing to a position that is deviated from the central portion of the shaft.

DRAWBACKS OF THE PRIOR ART

1. In Hossfield, the shaft is rotated while a coin is disposed in the notch. The position of the coin is deviated from the central portion of the shaft. Therefore, the device becomes larger.

Further, the shaft does not form a side wall of the guide path. Therefore, the device becomes larger.

Furthermore, the sensor is not arranged opposing to a central portion of the shaft. Therefore, the device becomes larger.

Incidentally, to accommodate a coin of a large diameter, the notch must be larger. However, the size of the notch has an upper limit because the supporting shaft 30 of the disk 22 would prevent the notch to become larger.

2. Since the shaft does not form a side wall of the guide path, another member is

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necessary to form the side wall. As a result, the number of parts and the manufacturing cost will increase.

3. In Hossfield, configuration is such that a coin is stopped by the notch formed in the disk 22, then is transported by rotating the disk 22 about the shaft 30 to a position deviated from the center of the disk 22 in which the sensor 52b, etc. are located so that the coin is examined by the sensor 52b.

In this configuration, since it is necessary to provide a shaft 30 for rotating the disk 22 at the center of the shaft portion, an antenna coil cannot be arranged at the center of the shaft portion even though the sensor 52b is replaced with the antenna coil. Since the drive means 42 for driving the disk 22 is disposed in the rearward of the shaft portion, the antenna coil cannot be disposed in the rearward of the shaft portion. Therefore, the area in which the antenna coil can be disposed is limited in Hossfield.

4. As stated above, in Hossfield, the coin is stopped by the notch formed in the disk 22, then is transported by rotating the disk 22 about the shaft 30 to a position deviated from the center of the disk 22 in which the sensor 52b, etc. are located so that the coin is examined by the sensor 52b.

In this configuration, even though the sensor 52b is replaced with an antenna coil, the antenna coil is not arranged at the center of the shaft portion, and a coin is not rotated while the coin is retained in the state in which the coin is disposed at a position opposing to the center of the shaft portion. Therefore, it is not possible to read information from and write information into a coin-shaped IC card by stopping the coin-shaped IC card while it is disposed in a position opposing to the center of the shaft portion. Therefore, it is necessary that the coin-shaped IC card is stopped and then it is guided to the antenna coil by rotating the disk. As a result, the time required for reading and writing information takes too long, and also time required for completing distributing operations after reading and writing information takes too long.

ADVANTAGEOUS EFFECT OF CLAIM 2

1. In claim 2, apparatus can be made small because:

- The shaft portion is configured so that it rotates while a coin-shaped IC card is disposed as opposed to the center of the shaft portion.

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- The shaft portion forms one of the side walls of the guide path.
- Antenna coil is disposed as opposed to the shaft 30.

Incidentally, the center of the shaft portion 12 does not interfere even for a coin-shaped IC card or large diameter.

2. In claim 2, the number of parts is reduced and therefore manufacturing cost is reduced because the shaft portion forms one of the side walls of the guide path.

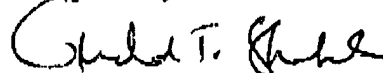
3. In claim 2, the antenna coil can be disposed at a position opposing to the shaft portion because the shaft portion does not have a center shaft.

4. In claim 2, writing/reading of information or distributing of coin-shaped IC card is performed at a high speed because a partition plate retains a coin-shaped IC card at a position opposing to a central portion of the shaft, and an antenna coil is arranged opposing to the coin-shaped IC card retained by the partition plate with the shaft therebetween, and to the central portion of the shaft, wherein the shaft is rotated while the coin-shaped IC card is kept opposite to the central portion of the shaft.

Applicant hereby requests reconsideration and re-examination thereof.

With the above amendments, this application is considered ready for allowance, and Applicants earnestly solicit an early notice of same. If the Examiner believes that a telephone conference would expedite prosecution of the subject application, he is respectfully requested to call the undersigned attorney at the telephone number listed below.

Respectfully submitted,


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